

WHAT IS CLAIMED IS:

1. An aliphatic polyester multifilament crimped yarn for a carpet comprising aliphatic polyester having a melting point of equal to or higher than 130°C, said multifilament crimped yarn having crimp elongation rate of 3-35% after being processed with boiling water and said multifilament crimped yarn having breaking strength of 1-5 cN/decitex.

2. The aliphatic polyester multifilament crimped yarn for the carpets according to claim 1, wherein said aliphatic polyester has refractive index of the polymer of equal to or less than 1.5.

3. The aliphatic polyester multifilament crimped yarn for the carpets according to claim 1, wherein said aliphatic polyester multifilament crimped yarn for the carpets comprises an aggregation of a hollow cross sectional single yarn, said hollow cross sectional single yarn having a thickness consisting of a distance between the outer circumference thereof and the contour of the hollow section of not less than 3 μm .

4. The aliphatic polyester multifilament crimped yarn for the carpets according to claim 3, wherein an areal

occupied rate of said yarn cross section that is occupied by the hollow section of the single yarn is 5-20%.

5. The aliphatic polyester multifilament crimped yarn for the carpets according to claim 1, wherein the axial cross section of said single yarn is triphyllous cross section.

6. The aliphatic polyester multifilament crimped yarn for the carpets according to claim 3, wherein the axial cross section of said single yarn is triphyllous cross section having one to three hollow sections therein.

7. The aliphatic polyester multifilament crimped yarn for the carpets according to claim 1, wherein the axial cross section of said single yarn is a polyphyllous shape including four to eight phylloids.

8. The aliphatic polyester multifilament crimped yarn for the carpets according to claim 3, wherein said aliphatic polyester multifilament crimped yarn for the carpets is a quartered hollow cross sectional yarn having four hollow sections in the axial cross section of the single yarn.

9. The aliphatic polyester multifilament crimped yarn

for the carpets according to claim 1, wherein said aliphatic polyester multifilament crimped yarn for the carpets is a heteromorphic cross sectional yarn in which a value (D/d) that is obtained by dividing a diameter (D) of the outer circumscribing circle of the single yarn axial cross section by a diameter (d) of an inner inscribing circle of the single yarn axial cross section is within a range of 1.1-8.

10. The aliphatic polyester multifilament crimped yarn for the carpets according to claim 9, wherein said value (D/d) is 1.3-5.

11. The aliphatic polyester multifilament crimped yarn for the carpets according to claim 7, wherein said aliphatic polyester multifilament crimped yarn for the carpets is a heteromorphic cross sectional yarn in which a value $[(h/L) \times 100]$, which is obtained by dividing a length (h) of a perpendicular line from a point in a tangential line contacting both of adjacent convexes to a most concave portion by a length (L) of the tangential line between the adjacent convexes, is 2-30.

12. The aliphatic polyester multifilament crimped yarn for the carpets according to claim 1, wherein average fineness of the single yarn is 3-35 decitex.

13. The aliphatic polyester multifilament crimped yarn for the carpets according to claim 1, wherein the aliphatic polyester is a biodegradable polyester including an L-lactic acid as a main component.

14. The aliphatic polyester multifilament crimped yarn for the carpets according to claim 1, wherein total fineness for the multifilament crimped yarn is 500-5,000 decitex.

15. The aliphatic polyester multifilament crimped yarn for the carpets according to claim 1, wherein boiling water shrinkage thereof is not higher than 10%.

16. The aliphatic polyester multifilament crimped yarn for the carpets according to claim 1, including 0.02-3% wt. of a coloring agent.

17. The aliphatic polyester multifilament crimped yarn for the carpets according to claim 16, wherein said coloring agent includes at least a carbon black pigment.

18. The aliphatic polyester multifilament crimped yarn for the carpets according to claim 1, wherein retention of the breaking strength after leaving 200 days in the

condition of the after-mentioned 20°C x 65% RH condition of equal to or higher than 80%.

19. The aliphatic polyester multifilament crimped yarn for the carpets according to claim 1, wherein yarn-metal kinetic friction coefficient is not higher than 0.4.

20. The aliphatic polyester multifilament crimped yarn for the carpets according to claim 1, wherein 0.1-2% wt. of an oil solution is adhered.

21. The aliphatic polyester multifilament crimped yarn for the carpets according to claim 20, wherein said oil solution includes a smoother agent component of polyester type.

22. A carpet composed of said aliphatic polyester multifilament crimped yarn for the carpets of claim 1.

23. The carpet according to claim 22, wherein said carpet is a tufting carpet comprising at least a face yarn of pile fiber and a base cloth in which the face yarn is tufted.

24. The carpet according to claim 23, wherein

aliphatic polyester is employed for at least a part of said base cloth.

25. A method for producing said aliphatic polyester multifilament crimped yarn according of claim 1, comprising providing crimp to drawn multifilament fiber including a biodegradable polymer containing an aliphatic polyester as a main component by using a crimp-providing apparatus that utilizes heated air.

26. The method for producing said aliphatic polyester multifilament crimped yarn according to claim 25, wherein a drawn yarn is used, said drawn yarn is produced by drawing a non-drawn yarn via two-step drawing processes, in which the yarn is drawn to 1.01-3 times at the first step and to 1.01-3 times at the second stage, and a drawing scale of 1.02-9 times in total.

27. The method for producing said aliphatic polyester multifilament crimped yarn according to claim 25, wherein said crimping process is continuously carried out without having a taking-off process in the mid-course thereof.

28. The method for producing said aliphatic polyester multifilament crimped yarn according to claim 25, wherein

said aliphatic polyester multifilament crimped yarn is produced by drawing a non-drawn multifilament yarn comprising a biodegradable polymer mainly consists of aliphatic polyester as a main component after pre-heating the filament at a temperature ranging from a glass transition temperature thereof to a temperature of 80°C higher than the glass transition temperature.

29. The method for producing said aliphatic polyester multifilament crimped yarn according to claim 25, wherein said aliphatic polyester multifilament crimped yarn is produced by adding a non-aqueous oil solution.